

NAVIGATING A UAV WITH ON-BOARD  
NAVIGATION ALGORITHMS WITH FLIGHT DEPICTION

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ABSTRACT

10 Navigating a UAV including receiving in a remote control device a user's selection of a GUI map pixel that represents a waypoint for UAV navigation, mapping the pixel's location on the GUI to Earth coordinates of the waypoint, transmitting the coordinates of the waypoint to the UAV, reading a starting position from a GPS receiver on the UAV, and piloting the UAV, under control of a navigation computer on the UAV, from the starting position to the waypoint in accordance with a navigation algorithm. While piloting the UAV from the starting position to the waypoint, such embodiments include reading from the GPS receiver a sequence of GPS data

15 representing a flight path of the UAV, and depicting the flight of the UAV with 3D computer graphics, including a computer graphic display of a satellite image of the Earth, in dependence upon the GPS data.